

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 8-K**

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**CURRENT REPORT  
PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

Date of report (Date of earliest event reported): **June 2, 2012**

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**ZIOPHARM Oncology, Inc.**

(Exact Name of Registrant as Specified in Charter)

**Delaware**  
(State or Other Jurisdiction  
of Incorporation)

**001-33038**  
(Commission File Number)

**84-1475672**  
(IRS Employer  
Identification No.)

**1180 Avenue of the Americas**  
**20<sup>th</sup> Floor**  
**New York, NY**  
(Address of Principal Executive Offices)

**10036**  
(Zip Code)

**(646) 214-0700**  
(Registrant's telephone number, including area code)

**Not applicable**  
(Former Name or Former Address, if Changed Since Last Report)

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Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425).
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12).
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)).
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c)).
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**Item 8.01**      **Other Events**

On June 2, 2012, ZIOPHARM Oncology, Inc. issued a press release announcing the completion of enrollment of its PICASSO 3 trial, an international, randomized, double-blind, placebo-controlled Phase 3 clinical study of palifosfamide in combination with doxorubicin, versus doxorubicin alone, for the treatment of metastatic soft tissue sarcoma in the front-line setting.

A copy of the above-referenced press release is filed as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

**Item 9.01**      **Financial Statements and Exhibits.**

(d)      Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press release dated June 2, 2012

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ZIOPHARM Oncology, Inc.

By: /s/ Caesar Belbel  
Name: Caesar Belbel  
Title: Executive Vice President, Chief Legal Officer

Date: June 4, 2012

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INDEX OF EXHIBITS

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press release dated June 2, 2012

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## **ZIOPHARM Oncology, Inc.**

### **ZIOPHARM Oncology Completes Enrollment in PICASSO 3 Trial Evaluating Palifosfamide in Front-Line Metastatic Soft Tissue Sarcoma**

**NEW YORK, NY – June 2, 2012** – ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP), a biopharmaceutical company focused on the development and commercialization of new cancer therapies, today announced completion of enrollment of the PICASSO 3 trial, an international, randomized, double-blind, placebo-controlled Phase 3 clinical study of palifosfamide in combination with doxorubicin, versus doxorubicin alone, for the treatment of metastatic soft tissue sarcoma (STS) in the front-line setting. Doxorubicin is the current standard of care for the treatment of STS in the front-line setting.

“This is an exciting and optimistic time for the community of sarcoma patients, their families, clinical care providers and researchers dedicated to this field, with a wave of new treatment options poised to improve outcomes for patients,” said George Demetri, M.D., an international expert in the development of new therapies for sarcomas and a member of the Medical Advisory Board of ZIOPHARM. “This international trial of palifosfamide carries this promise to the front-line treatment setting of soft tissue sarcoma, a disease in which progression-free survival has been accepted as an important measure of clinical benefit. The outcome of PICASSO 3 is greatly anticipated among physicians caring for sarcoma patients, as well as by the patients, who rely upon medical research to provide hope through safe and effective new treatment options.”

Jonathan Lewis, M.D., Ph.D., Chief Executive Officer of ZIOPHARM, said, “Throughout the enrollment process for PICASSO 3 we have maintained rigorous criteria to ensure that it closely mirrors the successful, randomized Phase 2 PICASSO study. As we look forward to top-line data in the second half of this year, we will continue to expand our palifosfamide program with the initiation of enrollment in the Phase 3 MATISSE study in small cell lung cancer.”

The PICASSO 3 study is designed to evaluate the safety and efficacy of palifosfamide and doxorubicin compared to doxorubicin and placebo, with no crossover between study arms. Progression-free survival (PFS) is the primary endpoint for accelerated approval, with overall survival (OS) as the primary endpoint for full approval. PICASSO 3 is being conducted at more than 150 clinical centers in North America, Europe, South America, Australia, Israel and Asia. Based on current projections, the Company expects data for the study’s primary endpoint for accelerated approval in the second half of this year.

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In the previously reported, randomized, controlled Phase 2 trial of palifosfamide plus doxorubicin versus doxorubicin alone in patients with unresectable or metastatic soft tissue sarcoma, a trial that was selected for the prestigious Best of ASCO designation in 2010, PFS showed a greater than 3 month improvement for the palifosfamide arm over the control arm. These results subsequently correlated with overall survival data favoring the palifosfamide arm. Based on these outcomes, and the recent full approval by the U.S. Food and Drug Administration of Votrient<sup>®</sup>, — based on a 3 month benefit in progression-free survival — for the treatment of patients with advanced soft tissue sarcoma who have received prior chemotherapy, the Company believes that the PICASSO 3 study is well-designed to achieve a successful outcome.

#### **About Soft Tissue Sarcoma**

Soft tissue sarcomas are cancers of the body's soft tissues, including cartilage, muscle, fat, nerves, blood vessels and other connective tissues. Sarcomas may develop in any part of the body, but are most common in the trunk, arms and legs. According to the American Cancer Society, 11,280 new cases of adult soft tissue sarcomas will be diagnosed in the United States this year. No new therapies have been approved for front-line use in sarcoma in the U.S. in more than 20 years.

#### **About ZIOPHARM Oncology, Inc.**

ZIOPHARM Oncology is a biopharmaceutical company focused on the development and commercialization of new cancer therapies. The Company's clinical programs include:

Palifosfamide (ZIO-201), a novel DNA-targeted cancer treatment that bypasses drug resistance mediated by ALDH (aldehyde dehydrogenase), an enzyme associated with cancer stem cells, and has a favorable toxicity profile. Intravenous palifosfamide is currently being studied in a randomized, double-blinded, placebo-controlled Phase 3 trial (PICASSO 3) for the treatment of front-line metastatic soft tissue sarcoma. The initiation of a pivotal Phase 3 trial in front-line metastatic small cell lung cancer is also expected early in the third quarter of 2012. Additionally, the Company is developing an oral capsule form of palifosfamide.

IL-12 DNA, a novel DNA therapeutic that is delivered to the patient's tumor and expresses interleukin-12, a protein that controls anti-cancer immune responses. IL-12 DNA is currently in two Phase 1 studies, with plans to move into Phase 2 studies. ZIOPHARM's DNA therapeutics are being developed in partnership with Intrexon Corporation through a revolutionary synthetic biology platform that allows for targeted, controlled production of therapies in humans with a biologic on/off switch (the RheoSwitch Therapeutic System<sup>®</sup>). Preclinical and discovery work with multiple therapeutic approaches, such as antibodies, immunotoxins, and protein decoys, is expected to result in multiple clinical candidates in the next 12 to 24 months.

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Indibulin (ZIO-301) is a novel, tubulin binding agent that is expected to have several potential benefits, including oral dosing, application in multi-drug resistant tumors, no neuropathy and a tolerable toxicity profile. It is currently being studied in a Phase 1/2 trial in metastatic breast cancer.

Darinaparsin (ZIO-101) is a novel mitochondrial- and hedgehog-targeted agent (organic arsenic) currently in ongoing studies with Solasia Pharma K.K.

ZIOPHARM's operations are located in Boston, MA; Germantown, MD; and New York City. Further information about ZIOPHARM may be found at [www.ziopharm.com](http://www.ziopharm.com).

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